

IN THE CLAIMS

The amendment of May 2, 2007 was not entered because the amendments raised new issues. Claims 1, 36, and 88 have been amended. Claims 27, 34, 80, 81, and 89 have been cancelled. Claims 1, 11, 34, 36, 42, 43, 82-88, and 90-93 are pending in the instant application. The following is the status of the claims of the above-captioned application, as amended.

1. (Currently Amended) A method for determining the mode of action of an antimicrobial compound, comprising:

(a) detecting hybridization complexes formed by contacting at least one nucleic acid sample, obtained by culturing cells of a *Bacillus subtilis* in the presence of at least one sub-inhibitory amount of an antimicrobial compound having an unknown mode of action, with a plurality of nucleic acid sequences corresponding to genes of the *Bacillus subtilis* cells, wherein the plurality of nucleic acid sequences is contained on a substrate, wherein the presence, absence or change in the amount of the hybridization complexes detected, compared with hybridization complexes formed between the plurality of nucleic acid sequences and a second nucleic acid sample obtained from the *Bacillus subtilis* cells cultured in the absence or presence of a standard compound having a known mode of action, is indicative of the similarity or dissimilarity of the mode of actions of the antimicrobial compound and the standard compound; and

(b) assigning a mode of action for the antimicrobial compound based on the similarity or dissimilarity of values assigned to the hybridization complexes detected in (a) based on the relative amount of hybridization to a second set of hybridization values assigned to the hybridization complexes formed from the second nucleic acid sample.

2-10. (Cancelled).

11. (Original) The method of claim 1, wherein the antimicrobial compound is a member of the class of antimicrobial compounds that inhibit cell wall synthesis, interfere with the cell membrane, inhibit protein synthesis, inhibit topoisomerase activity, inhibit RNA synthesis, or is a competitive inhibitor.

12-26. (Cancelled)

27. (Cancelled).

28-33. (Cancelled)

34. (Cancelled).

35. (Cancelled)

36. (Currently Amended) The method of claim 1, further comprising:

(c) identifying from the plurality of nucleic acid sequences at least one sequence from the nucleic acid sample obtained from the *Bacillus subtilis* cells cultivated in the presence of the antimicrobial compound that has a detected expression level that is significantly different from the nucleic acid sample obtained from *Bacillus subtilis* cells cultivated in the absence of the antimicrobial compound, wherein the difference in the detected expression level is at least about 10% or greater.

37-41. (Cancelled)

42. (Previously Presented) The method of claim 36, further comprising:

(d) isolating a sequence identified in (c).

43. (Original) The method of claim 42, wherein the sequence is a marker of the antimicrobial compound.

44-79. (Cancelled).

80. (Cancelled).

81. (Cancelled).

82. (Previously Presented) The method of claim 1, wherein the plurality of sequences correspond to less than about 75% of the genome of the *Bacillus subtilis* cells.

83. (Previously Presented) The method of claim 1, wherein the plurality of sequences correspond to less than about 50% of the genome of the *Bacillus subtilis* cells.
84. (Previously Presented) The method of claim 1, wherein the plurality of sequences correspond to less than about 25% of the genome of the *Bacillus subtilis* cells.
85. (Previously Presented) The method of claim 1, wherein the plurality of sequences correspond to less than about 10% of the genome of the *Bacillus subtilis* cells.
86. (Previously Presented) The method of claim 1, wherein the plurality of sequences correspond to less than about 5% of the genome of the *Bacillus subtilis* cells.
87. (Previously Presented) The method of claim 1, wherein the plurality of sequences correspond to less than about 2% of the genome of the *Bacillus subtilis* cells.
88. (Currently Amended) The method of claim ~~34~~ 1, wherein the substrate is a microarray, macroarray, Southern blot, zoo blot, slot blot, dot blot, or Northern blot.
89. (Cancelled).
90. (Previously Presented) The method of claim 36, wherein the difference in the detected expression level is at least about 20% or greater.
91. (Previously Presented) The method of claim 36, wherein the difference in the detected expression level is at least about 50% or greater.
92. (Previously Presented) The method of claim 36, wherein the difference in the detected expression level is at least about 75% or greater.
93. (Previously Presented) The method of claim 36, wherein the difference in the detected expression level is at least about 100% or greater.